

INTERMEDIATE STATE PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Intermediate Operating Permit Number:

Expiration Date:

Installation ID: 053-0027 **Project Number:** 2005-03-057

Installation Name and Address

Boonville Correctional Center 1216 East Morgan Street Boonville, MO 65233 Cooper County

Parent Company's Name and Address

Missouri Department of Corrections 2729 Plaza Drive Jefferson City, MO 65102

Installation Description:

This is a State correctional center that has emission units comprising three natural gas-fired boilers and two emergency generators.

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Installation Description and Equipment Listing I.

INSTALLATION DESCRIPTION

This is a State correctional center that has emission units comprising three natural gas-fired boilers and two emergency generators.

| | Reported Air Pollutant Emissions, tons per year | | | | | | | | | |
|------|---|----------|----------|-----------|----------|------|------------|--|--|--|
| Year | Particulate | Sulfur | Nitrogen | Volatile | Carbon | | Hazardous | | | |
| | Matter | Oxides | Oxides | Organic | Monoxide | Lead | Air | | | |
| | ≤ Ten Microns | (SO_x) | (NO_x) | Compounds | (CO) | (Pb) | Pollutants | | | |
| | (PM-10) | | | (VOC) | | | (HAPs) | | | |
| 2004 | 0.25 | 0.07 | 3.30 | 0.18 | 2.68 | 0.0 | 0.0 | | | |
| 2003 | 0.26 | 0.07 | 3.49 | 0.30 | 2.84 | 0.0 | 0.0 | | | |
| 2002 | 0.27 | 0.05 | 3.50 | 0.31 | 2.88 | 0.0 | 0.0 | | | |
| 2001 | 0.27 | 0.06 | 3.53 | 0.29 | 2.87 | 0.0 | 0.0 | | | |
| 2000 | 0.26 | 0.05 | 3.43 | 0.30 | 2.80 | 0.0 | 0.0 | | | |

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation that emits air pollutants and which is identified as having unit-specific emission limitations.

| Emission | |
|----------|--|
| Unit # | Description of Emission Unit |
| EU0010 | Boiler #1, Natural Gas-Fired, 16.74 MMBtu/hr |
| EU0020 | Boiler #2, Natural Gas-Fired, 16.74 MMBtwhr |
| EU0030 | Boiler #3, Natural Gas Fired, 16,75 MMBtu/hr |
| EU0040 | Emergency Generator Outside Powerhouse (100 kW, Diesel Engine) |
| EU0050 | Emergency Generator Inside Powerhouse (100 kW, Diesel Engine) |
| | |

EMISSION UNITS WITHOUT LIMITATI

The following list provides a description of the equipment which does not have unit specific limitations at the time of permit issuance.

Description of Emission Source

Two (2) 12,500-gallon Horizontal Fuel Oil Storage Tanks Gasoline Storage Tank, 2000 gallons

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

None.

Plant Wide Emission Limitations II.

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION PW001

10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Limitation:

- 1. The permittee shall discharge into the atmosphere from the entire installation less than 99.5 tons of sulfur dioxide (SO₂) in any consecutive 12-month period.
- 2. The permittee shall comply with the following limitations to ensure that SO₂ emissions do not exceed 99.5 tons per year:
 - a. Fuel oil combusted in the boilers and the emergency generators (EU0010 through EU0050) shall not exceed a sulfur content of 0.5 percent by weight;
 - b. The amount of fuel oil combusted in the boilers shall not exceed 2,750,000 gallons in any consecutive 12-month period.

Monitoring:

The permittee shall maintain a record of the amount of fuel oil combusted in the boilers each month and in each consecutive 12-month period. This record shall be kept on the form shown in Attachment A (or an equivalent of the permittee's design).

Recordkeeping:

- 1) The permittee shall keep on-site for a period of five years the records of the amount of fuel oil combusted in the boilers each month.
- 2) The permittee shall keep a copy of Attachment B with this permit as demonstration that combustion of 2,750,000 gallons per year of fuel oil with a sulfur content of less than or equal to 0.5% by weight will not exceed the plant-wide emissions limitation of 99.5 tons SO₂ per year.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of this permit condition.

Emission Unit-Specific Emission Limitations III.

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

| | EU0010 through EU0030 – INDIRECT HEATING SOURCES | | | | | | | | | |
|------------------|---|---------------------------|-------------------------|--|--|--|--|--|--|--|
| Emission Unit | Description | Manufacturer/Model # | 2004 EIQ Reference # | | | | | | | |
| EU0010 | Natural gas-fired Steam Generating Unit (16.74 MMBtu/hr; 1990). Fuel Oil #2 used as auxiliary fuel. | Cleaver Brooks/CB200-400 | EP02 | | | | | | | |
| EU0020 | Natural gas-fired Steam Generating Unit (16.74 MMBtu/hr; 1990). Fuel Oil #2 used as auxiliary fuel. | Cleaver Brooks/CB200-400 | EP02 | | | | | | | |
| EU0030 | Natural gas-fired Steam Generating Unit (16.75 MMBtu/hr; 1996). Fuel Oil #2 used as auxiliary fuel. | Cleaver Brooks/CB200-400- | EP02 | | | | | | | |

PERMIT CONDITION [EU0010 through EU0030]-001

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60, Subpart A General Provisions and Subpart Dc \Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Emission Limitations:

Sulfur Dioxide (SO_2):

- 1) On and after the date on which the initial performance test is completed or required to be completed under §60.8 of 40 CFR Part 60, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/million Btu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur.
- 2) Compliance with these SO₂ emission limits and fuel oil sulfur limits shall be determined on a 30-day rolling average basis.
- 3) These SO₂ emission limits and fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction.

Operational Limitation:

These emission units shall be limited to burning either distillate fuel oil that contains not more than 0.5 weight percent sulfur on a 30-day rolling average basis, or natural gas.

Monitoring/Recordkeeping:

1) The permittee shall maintain documentation supporting that the fuel used in these emission units for any given time period is either distillate fuel oil that contains not more than 0.5 weight percent sulfur on a 30-day rolling average basis, or natural gas.

- 2) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.
- 3) Compliance with the distillate fuel oil sulfur limits may be determined based on certifications from the fuel supplier(s). Fuel supplier certification for distillate fuel oil shall include the following information:
 - a) The name of the oil supplier, and
 - b) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c.
 - c) Sulfur content of distillate fuel oil by weight percent.
 - Note: Fuel supplier certification is not required for the pipeline-grade natural gas.
- 4) The permittee shall maintain all records required for SO₂ under this permit condition for a period of five years following the date of such record.
- 5) The permittee shall immediately make such records available to Department of Natural Resources personnel upon request.

Reporting:

Sulfur Dioxide (SO₂):

- 1) The permittee shall submit a semi-annual report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. The report shall be postmarked by October 1st for monitoring which covers the January through June time period and by April 1st for monitoring which covers the July through December time period. This report shall include the following information:
 - a) Calendar dates covered in the reporting period,
 - b) Records of the amounts of each fuel combusted during each day,
 - c) Each 30-day average sulfur content by weight percent calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.
 - d) Each 30-day average percent of potential SO₂ emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.
 - e) Records of any fuel supplier certifications, as described in 3) in the Monitoring/Recordkeeping section of this permit condition.
 - f) In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the responsible official that "The records of fuel supplier certifications submitted represent all of the distillate fuel oil combusted during the time period being reported."
- 2) The permittee shall report any deviations/exceedances of the operational limitation of this permit condition and any deviations from the Monitoring/Recordkeeping and Reporting requirements of this permit condition in the annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION [EU0010 through EU0030]-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitations:

- 1. No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with opacity greater than 20%.
- 2. A person may discharge into the atmosphere from any source of emissions for a period(s)

aggregating not more than six (6) minutes in any 60 minutes air contaminants with opacity up to 60%.

Monitoring:

- The permittee shall conduct opacity readings on these emission units using the procedures contained in Test Method 22 in Appendix A of 40 CFR Part 60. Opacity readings are required only during periods when the boilers are combusting fuel oil #2. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct an observation using the procedures contained in Test Method 9 in Appendix A of 40 CFR Part 60.
- 2) These opacity readings shall be conducted on a boiler once each day during times it burns any fuel other than natural gas, at a time when it is not burning natural gas. Qpacity readings are not necessary on a boiler on days when it burns natural gas exclusively.

Recordkeeping:

- The permittee shall maintain records of all Method 22 observation results (See Attachment C1 or C2.), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (See Attachment D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (See Attachment E)
- 4) Attachments C1 or C2, D, and E contain logs satisfying these recordkeeping requirements. These logs, or equivalents created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be maintained for five years. They must be maintained on-site for five years. They may be kept in either written or electronic form.
- 6) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determines, using the Method 9 test, that the emission unit(s) exceeded the opacity limit.
- 2) The permittee shall report any deviations from the monitoring, recordkeeping and reporting requirements of this permit condition in the annual monitoring report and compliance certification required by Section V of this permit.

| EU0040 and EU0050 – EMERGENCY GENERATORS | | | | | | | | | |
|--|--|----------------------------------|-------------|--|--|--|--|--|--|
| Emission | Description | Manufacturer/Model # | 2004 EIQ | | | | | | |
| Unit | Bescription | Wandadatalen/Wodel # | Reference # | | | | | | |
| EU0040 | Emergency Generator Outside Powerhouse (100 kW; Diesel Engine, 5.5 MMBtu/hr; installed 2002) | Olympia / OLY- 00005JNPS00491 | None | | | | | | |
| EU0050 | Emergency Generator Inside Powerhouse (100 kW; Diesel Engine, 4.1 MMBtu/hr; installed 1990) | Kohler / 100R07J/1 | None | | | | | | |

PERMIT CONDITION [EU0040 and EU0050] - 001

10 CSR 10-6.061 Construction Permit Exemptions

Emission Limit/Operational Limitation:

The permittee may operate each emergency generator for a period of time not to exceed five hundred (500) hours per generator in any consecutive 12-month period. The emergency generators shall be operated only during emergency situations, such as when power from the utility is interrupted, and for short periods of time to perform maintenance and operational reachings testing.

Monitoring/Recordkeeping:

- 1) The emergency generators shall be equipped with a non-resettable meter that displays elapsed time of operation.
- 2) The permittee shall maintain a log that contains a record of the number of hours each emergency generator is operated. The record shall include the date the generator engine is operated, the beginning and ending hours on the non-resettable meter, and the total number of hours the engine operated during each run.
- 3) The permittee shall maintain documentation supporting that the fuel used in these emission units for any given time period is a distillate fuel that contains not more than 0.5 weight percent sulfur.
- 4) The permittee shall immediately make such records available to Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report any deviations exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102.

IV. **Core Permit Requirements**

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR), Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions:
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event earnot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10] CSR 10-6.065(5)(B)1.A(III)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065, §(5)(C)(1) and §(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065, §(5)(C)(1) and §(6)(C)3.B]

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.
- 3) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alekt (vellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:

- a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
- b) Paving or frequent cleaning of roads, driveways and parking lots;
- c) Application of dust-free surfaces;
- d) Application of water; and
- e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-3.030 Open Burning Restrictions

- 1) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- 2) Exception Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open
- 3) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
 - a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - b) The schedule of burning operations;
 - c) The exact location where open burning will be used to dispose of the trade wastes;
 - d) Reasons why no method other than open burning is feasible; and
 - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- 4) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt Boonville Correctional Center from the provisions of any other law, ordinance or regulation.
- The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

10 CSR 10-3.090 Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven

volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

This requirement is not federally enforceable.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, of disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to \$82.166. "MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozonedepleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. Federal Only - 40 CFR part 82

10 CSR 10-6.280 Compliance Monitoring Usage

- The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources"
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards"
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V. **General Permit Requirements**

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)1.C General Recordkeeping and Reporting **Requirements**

- 1) Recordkeeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) April 1st for monitoring which covers the January through December time period.
 - ii) Exception. Monitoring requirements which require reporting more frequently than annually shall report no later than 30 days after the end of the alendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit.
 - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.

- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's annual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065 §(5)(C)1 and §(6)(C)1.D Risk Management Plan Under Section 112(r)

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(5)(C)1.A General Requirements

- The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted under this rule.
- 6) Failure to comply with the limitations and conditions that qualify the installation for an Intermediate permit make the installation subject to the provisions of 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit.

10 CSR 10-6.065(5)(C)1.C Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065, $\S(5)(C)1$, $\S(5)(C)3$, $\S(6)(C)3$.B, and $\S(6)(C)3$.E.(I) – (III) and (V) – (VI) **Compliance Requirements**

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and exceedances must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
 - e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)7 Emergency Provisions

1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions

limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:

- a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
- b) That the installation was being operated properly,
- c) That the permittee took all reasonable steps to minimize emissions that exceeded technologybased emissions limitations or requirements in this permit, and
- d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(5)(C)5 Off-Permit Changes

- Except as noted below, the permittee may make any change in its permitted installation's operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is a Title I modification; Please Note: Changes at the installation which affect the emission limitation(s) classifying the installation as an intermediate source (add additional equipment to the recordkeeping requirements, increase the emissions above major source level) do not qualify for off-permit changes.
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program, Enforcement Section, P.O. Box 136, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kapsas City, Kansas 66101, no later than the next annual emissions report. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change; and
 - The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of this permit was signed by Ronald K. Schmitz, Superintendent IV. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065 §(5)(E)4 and §(6)(E)6.A(III)(a)-(c) Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 2) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire; or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 3) MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065 §(5)(E)1.A and §(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. **Attachments**

Attachments follow.

ATTACHMENT A

SO₂ Emissions Compliance Worksheet

Boonville Correctional Center Boonville, Missouri

Fuel Oil Combustion in Boilers

| Month | Gallons of fuel oil used | Gallons used during most recent 12-month period | Month | Gallons of fuel oil used | Gallons used during most recent 12-month period |
|-------|-----------------------------|---|-------|--------------------------|---|
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ATTACHMENT B

Sulfur Dioxide Emission Calculations

This attachment presents calculations that show the basis for plant-wide limitations on fuel oil combustion at the installation to ensure that site-wide SO₂ emissions do not exceed 100 tons per year. Sulfur dioxide is emitted from combustion of natural gas and fuel oil in the three boilers and from use of the emergency generators.

Input Values

Total Boiler Heat Input Capacity = [16.74 + 16.74 + 16.75] MMBtu/hr = 50.23 MMBtu/hr

Heating value of pipeline quality natural gas = 1050 Btu/ft³

Natural gas combustion SO_2 emission factor, from AP-42 Table 1.4-1 = 0.6 lb/ 10^6 cf

Heating value of #2 fuel oil = 140,000 Btu/gallon

Fuel oil sulfur content is maximum of 0.5% by weight

Fuel oil combustion SO_2 emission factor, from AP-42 Table 1.3-1 = 1/42S lb/1000 gallons, where S is the fuel oil sulfur content by weight percent

Emergency Generators

The emergency generators' potential to emit (PTE) SO₂ is based on

- Use of diesel fuel containing no more than 0.5 percent by weight sulfur;
- Maximum of 500 hours of operation per year; and
- Conversion of all sulfur in the fuel to SO₂.

The emergency generators have a maximum heat input rating of 3.5 MMBtu/hr and 4.1 MMBtu/hr for a total of 9.6 MMBtu/hr. Thus, operating both emergency generators consumes fuel at the rate:

$$9.6 \times 10^6$$
 Btu/hr × gallon/137,000 Btu = 70.1 gallons per hour

If they operate for the maximum allowable 500 hours per year, they emit:

70.1 gal/hr × 500 hr/yr ×
$$142(0.5)$$
lb/SO₂/1000 gal × ton/2000 lb = 1.24 tons/yr

Boilers

1) Assuming continuous, year-round natural gas combustion, the boilers' SO₂ PTE is:

$$\frac{50.23 \times 10^6 \text{ Btu}}{\text{hr}} \times \frac{\text{cf}}{1050 \text{ Btu}} \times \frac{0.6 \text{ lb SO}_2}{10^6 \text{ cf}} \times \frac{\text{ton}}{2000 \text{ lb}} \times \frac{8760 \text{ hr}}{\text{year}} = \underline{0.13 \text{ ton/yr}}$$

2) Assuming continuous, year-round fuel oil combustion (0.5% sulfur), the boilers' SO₂ PTE is:

$$50.23 \text{ MMBtu/hr} \times \text{gallon/}140,000 \text{ Btu} \times 10^6 \text{ Btu/MMBtu} = 358.8 \text{ gallons/hr}$$

358.8 gal/hr
$$\times$$
 142(0.5)lb SO₂/1000 gal \times 8760 hr/yr \times ton/2000 lb = 111.6 tons/yr

(ATTACHMENT B, continued)

Note: This estimate of the boilers' SO₂ PTE from fuel oil combustion shows that a voluntary limit is needed to make the installation an intermediate source.

SO₂ Emissions Less Than 99.5 Tons Per Year

If the site-wide permit limit for SO₂ is set at 99.5 tpy, fuel oil use in the boilers must be limited to ensure that the units do not exceed this limit. The amount of SO₂ allowed from fuel oil combustion in the boilers can be conservatively estimated by subtracting the PTE of boiler natural gas combustion (0.13 tpy) and the PTE from potential emergency generator operation (1.23 tpy) from the emission limit of 99.5 tpy.

$$99.5 \text{ tpy} - 0.13 \text{ tpy} - 1.24 \text{ tpy} = 98.13 \text{ tpy}$$

If fuel oil combustion in the boilers is limited to 2,750,000 gallons, per year SO₂ emissions are:

 $2,750,000 \text{ gallons} \times 142(0.5) \text{lb. } \text{SO}_2/1000 \text{ gallons} \times \text{ton}/2000 \text{ lb} = 97.63 \text{ ton/year}$

Summing all SO₂ potential emission rates:

$$97.63 \text{ tpy} + 0.13 \text{ tpy} + 1.24 \text{ tpy} = 99.0 \text{ tpy}$$

ATTACHMENT C1

| Method 22 (Outdoor Observation Log) | | | | | | | | |
|---|--|-------------------------------|--|--|--|--|--|--|
| Emission Unit | | | | | | | | |
| Observer | | Date | | | | | | |
| Sky Conditions | | | | | | | | |
| Precipitation | | | | | | | | |
| Wind Direction | | Wind Speed | | | | | | |
| Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points. | | | | | | | | |
| Observation Clock Time | | n Period Duration ute:second) | Accumulative Emission Time (minute:second) | | | | | |
| Begin Observation | | | | | | | | |
| End Observation | | | | | | | | |

ATTACHMENT C2

| | Method 22 Opacity Emission Obs | servations Fo | or EU | |
|------|--------------------------------|----------------------------------|----------------------------|---|
| Date | Method 22 Test Observer | Visible Emissions (yes/no) | Emissions normal? (yes/no) | If Visible emissions, was a Method 9 done? (yes/no) |
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ATTACHMENT D

An example of a log for noting when an equipment malfunction causes visible emissions.

| | Boonville Correctional Center Equipment Malfunction Log | | | | | | | | | | | |
|------|---|---------------------|---|--|--|--|--|--|--|--|--|--|
| Date | Equipment | Type of Malfunction | Did visible emissions trigger requirement for a Method 9 observation? | | | | | | | | | |
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ATTACHMENT E

| Method 9 Opacity Emission Observations | | | | | | |
|--|-----------------------------|--|--|--|--|--|
| Company | Observer | | | | | |
| Location | Observer Certification Date | | | | | |
| Date | Emission Unit | | | | | |
| Time | Control Device | | | | | |

| Hour | Min. | Seconds | | Seconds Steam Plume (check if applicable) | | Comments | | |
|------|------|---------|----|---|--------|----------|----------|--|
| | | 0 | 15 | 30 | 45 | Attached | Detached | |
| | 0 | | | | | | | |
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| SUMMARY OF AVERAGE OPACITY | | | | | | | | | |
|----------------------------|-------|-----|---------|---------|--|--|--|--|--|
| Set Number | Ti | me | Opacity | | | | | | |
| Set Number | Start | End | Sum | Average | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| Readings ranged from to | % opacity. | | |
|--|-----------------------|------|-----------------------|
| Was the emission unit in compliance at the | e time of evaluation? | | |
| • | YE | S NC | Signature of Observer |

ATTACHMENT F

Demonstration of Boiler Compliance with 10 CSR 10-3.060

This attachment may be used to demonstrate compliance with 10 CSR 10-3.060 Maximum Allowable Emission of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating

The particulate matter (PM) emission limit is computed based on the total heat input of all fuel burning units at the facility. The facility's total heat input of all fuel burning units is "Q", in millions of Btu per hour, and is based on the following equipment:

| Equipment | Heat Input (MMBtu/hr) |
|-----------------------|--------------------------|
| Boiler No. 1 (EU0010) | 16.74 |
| Boiler No. 2 (EU0020) | 16.74 _^ |
| Boiler No. 3 (EU0030) | 16.75 |
| TOTAL (Q) | 50.23 |

1. Emission Limit for new units, i.e. installed after 02/15/1979

1.31
$$Q^{-0.338} = 1.31(50.23)^{-0.338} = 0.35$$
 lb/MMBzú

The following table demonstrates compliance with both emission limits if either natural gas or fuel oil #2 are burned:

| Fuel | Heat Value (mmBtu/hr) | PM Emission Factor | Emission Factor Reference | Potential PM Emission Rate |
|-------------|--------------------------|-----------------------------------|------------------------------|-------------------------------|
| Natural Gas | 1050 Btu/ft | 7.6 16/mmft ³ | AP-42 Table 1.4-2 | 0.007 (lb/mmBtu) |
| Fuel Oil | 140,000 Btu/gal | $2.0 \text{ lb/}10^3 \text{ gal}$ | AP-42 Table 1.3-1 | 0.014 (lb/mmBtu) |

Calculations of potential particulate matter emission rates shown in the table above:

- Natural Gas: $ft^3/1050 \text{ Btu} \times 7.6 \text{ lb/mmft}^3 \times \text{mmft}^3/10^6 \text{ ft}^3 \times 10^6 \text{ Btu/mmBtu} = 0.007 \text{ lb/mmBtu}$
- Fuel Oil #2: gal/140,000 Btu \times 2.0 lb/1000 gal \times 10⁶ Btu/mmBtu = 0.014 lb/mmBtu

Project No. 2005-03-057

STATEMENT OF BASIS

Voluntary Limitations

In order to qualify for this Intermediate State Operating Permit, the permittee has accepted voluntary, federally enforceable emission limitations. Per 10 CSR 10-6.065(5)(C)1.A.(VI), if these limitations are exceeded, the installation immediately becomes subject to 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit. It is the permittee's responsibility to monitor emission levels and apply for a part 70 operating permit far enough in advance to avoid this situation. This may mean applying more than eighteen months in advance of the exceedance, since it can take that long or longer to obtain a part 70 operating permit.

Without a voluntary limit on fuel oil combustion in the boilers, this installation has the potential to emit more than 100 tons of sulfur dioxide per year (see calculations of potential emissions in Attachment B). At the permittee's request, the Missouri Department of Natural Resources included a voluntary Plant-Wide limitation in this State Operating Permit so the permittee meets the mass emission criterion to be an "intermediate installation" as defined in 10 CSR 10-6.065(1)(C).

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Intermediate Operating Permit Application, received March 11, 2005.
- 2) 2004 Emissions Inventory Questionnaire, received February 14, 2005;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None.

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined that the following requirements are not applicable to this installation at this time for the reasons stated.

- 1) 10 CSR 10-3.060, Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating, does not apply to the boilers (EU001, EU0020, EU0030) because they are subject to the provisions of 10 CSR 10-6.070. 10 CSR 10-3.060 does not apply to sources subject to 10 CSR 10-6.070, as stated in paragraph 10 CSR 10-3.060(3)(E).
- 2) 10 CSR 10-6.100, Alternate Emission Limits, does not apply to this installation. Per 10 CSR 10-6.100(1)(A), it is exempt because it is in an ozone attainment area.

Project No. 2005-03-057

- 3) The emergency generators at the installation are exempt from 10 CSR 10-6.220, Restriction of Emission of Visible Air Contaminants, as stated in paragraph 10 CSR 10-6.220(1)(A), because they are internal combustion engines operated outside the Kansas City or St. Louis metropolitan areas.
- 4) 10 CSR 10-6.260, Restriction of Emissions of Sulfur Compounds, would apply to the three boilers (EU0010, EU0020 and EU0030) but for the exemption in paragraph 10 CSR 10-6.260(1)(A)1. This paragraph exempts emission sources that are subject to an applicable sulfur compound emission limit under 10 CSR 10-6.070, New Source Performance Regulations. The three boilers are subject to a sulfur dioxide emission limit in the NSPS 40 CFR 60, Subpart Dc, which 10 CSR 10-6.070 incorporates by reference.
- 5) 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter from Industrial Processes*, does not apply to the three boilers at the facility. Paragraph 10 CSR 10-6.400(1)(B)6. exempts sources that burn fuel for indirect heating. This rule also does not apply to the emergency generators because they are exempted by paragraph 10 CSR 10-6.400(1)(B)8.

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

None.

New Source Performance Standards Applicability

The installation has three emission units subject to a new source performance standard. All of the Cleaver Brooks boilers are subject to 40 CFR 60, Subpart Dc, the applicable requirements of which are included in this operating permit. The NSPS requires records to be kept for two years, but State operating permits require records to be maintained for five years for compliance demonstration purposes. Thus, the NSPS recordkeeping requirement was changed to five years to be consistent with State operating permit regulations.

Maximum Available Control Technology Applicability

This installation does not have any emission units subject to a maximum available control technology regulation.

National Emission Standards for Hazardous Air Pollutants Applicability

In the permit application and according to APCP records, there was no indication that any Missouri Air Conservation Law, Asbestos Abatement, 643.225 through 643.250; 10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants, Subpart M, National Standards for Asbestos; and 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements apply to this installation. The installation is subject to these regulations if they undertake any projects that deal with or involve any asbestos containing materials. None of the installation's operating projects underway at the time of this review deal with or involve asbestos containing material. Therefore, the above regulations were not cited in the operating permit. If the installation should undertake any construction or demolition projects in the future that deal with or involve any asbestos containing materials, the installation must follow all of the applicable requirements of the above rules related to that specific project.

Project No. 2005-03-057

Other Regulatory Determinations

- 1) 10 CSR 10-6.220 *Restriction of Emissions of Visible Air Contaminants*, applies to the indirect heating units (EU0010 through EU0030). However, they are automatically in compliance with it when they burn natural gas. On page 1.5.1 in U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition, it states that liquefied petroleum gas does not produce visible emissions, even though it does produce a small amount of particulate matter. The same is true for natural gas. (See note (a) on Table 1.5.1 in that same document.). Thus, this regulation is included as a permit condition for these emission units only during periods when fuel oil is burned.
- 2) The operational limit of 500 hours per year applied to each emergency generator in this operating permit was derived from the implied limit associated with the construction permit exemption at 10 CSR 10-6.061(3)(A)2.BB. While emergency generators are exempt from inclusion in construction permits, an operational limit is needed in this operating permit so that their potential SO₂ emissions can be quantified. The maximum amount of SO₂ emitted by the generators was then used in calculating the fuel oil usage limit for the three boilers. Total SO₂ emissions from the installation must be less than 100 tons per year for it to qualify for an intermediate operating permit.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons.

- 1) The specific pollutant regulated by that rule is not emitted by the installation.
- 2) The installation is not in the source category regulated by that rule.
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule.
- 4) The installation does not contain the type of emission unit which is regulated by that rule.
- 5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

| Richard J. Campbell, P.E. | |
|---------------------------|--|
| Environmental Engineer | |

Prepared by:

Mr. Ronald Schmitz Boonville Correctional Center 1216 East Morgan Street Boonville, MO 65233

Re: Boonville Correctional Center, 053-0027

Permit Number:

Dear Sir/Madam:

Enclosed with this letter is your intermediate operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E. Operating Permit Unit Chief

MJS: rck

Enclosures

c: Ms. Tamara Freeman, US EPA Region VII

Southeast Regional Office PAMS File: 2005-03-057

CERTIFIED MAIL: 70041160000081694375 RETURN RECEIPT REQUESTED

Mr. Zachary Lee Schmidt Safety Manager Boonville Correctional Center 1216 East Morgan Street Boonville, MO 65233

Re: Draft Intermediate Operating Permit – Project (PAMS): 2005-03-057

Dear Mr. Schmidt:

The Air Pollution Control Program (APCP) has completed the preliminary review of your Intermediate (Title V) permit application. A public notice will be placed in the Boonville Daily News on July 21, 2006.

The APCP will accept comments regarding the draft permit that are postmarked on or before the closing date. It is very important that you <u>read</u> and <u>understand</u> this legal document. You will be held responsible for complying with this document.

Please address comments or recommendations for changes to my attention at:

Operating Permits Unit Air Pollution Control Program P.O. Box 176 Jefferson City, MO 65102

A copy of this draft is also being sent to the U.S. EPA's Region VII office in Kansas City for their review. The Region VII office is afforded, by law, oversight authority on any Title V permit which Missouri (or any of the other states in the region) may propose to issue. A public hearing may be held if interest is expressed by the public.

Should you have any questions, or wish clarification on any items in this draft permit, please feel free to contact me at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Richard J. Campbell, P.E. Environmental Engineer

RJC/kdm

Enclosures

c: Ms. Tamara Freeman, US EPA Region VII

PAMS File: 2005-03-057

No Affected States

Designate affected state(s). clerical will add appropriate address and director's name: Affected State Address

RE: Affected States Review – Notification of Proposed Final Intermediate Operating Permit Dear Mr. {Director's Name}:

In accordance with Missouri State Rule 10 CSR 10-6.065(5)(F)1. and the Clean Air Act this letter is to notify you of public notice of the preliminary draft and request for comments for:

Boonville Correctional Center located in Boonville, MO 65233

Project Number - 2005-03-057

Public notice will be published in the Boonville Daily News in Boonville MO on July 21, 2006

You are invited to submit any relevant information, materials, and views in support of or in opposition to the draft operating permits in writing by no later than August 20, 2006 to my attention at Missouri Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Should you require further information or documentation on this matter, please contact the Operating Permits Unit at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Thank you for your time and attention.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E. Operating Permit Unit Chief

MJS: :rck

For Publication on Friday, July 21, 2006

Notice of documents available for public viewing Department of Natural Resources Air and Land Protection Division Air Pollution Control Program

A draft-operating permit has been issued for the following air pollution sources:

| Installation | City | Project # |
|-------------------------------|-----------|-------------|
| Boonville Correctional Center | Boonville | 2005-03-057 |
| | | |

Activities included in these permits are all activities involved in the operation of these sources with the potential for producing regulated quantities of regulated air pollutants.

Copies of the draft permits are available for public comment. Public files containing copies of all non-confidential materials and a copy or summary of other materials, if any, considered in this draft permit, are available for public viewing at the following locations: MO Dept. of Natural Resources, Northeast Regional Office, 1709 Prospect Drive, Macon, MO 63552 or by written request from the Air Pollution Control Program, Operating Permits Unit, P.O. Box 176, Jefferson City, MO 65102 (Any information deemed confidential business information pursuant to Missouri State Rule 10 CSR 10-6.210, *Confidential Information*, if any exists, are not included in the public files. Emission data, as defined by this rule, cannot be considered confidential business information.)

The file is available for viewing through August 20, 2006. Citizens are invited to submit any relevant information, materials, and views in support of or in opposition to the draft operating permits in writing no later than August 20, 2006. Written comments and/or requests for public hearing should be sent to Mr. Jim Kavanaugh, Missouri Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

The Air Pollution Control Program will hold an informal public hearing after an additional 30 day comment period on the draft permit if: 1.) A timely request is made for such a hearing during the public comment period; and 2.) The person requesting the hearing identifies material issues concerning the preliminary determination and the Air Pollution Control Program determines that a public hearing will be useful in resolving those issues.

This public notice is made pursuant to Missouri State Rule 10 CSR 10-6.065, Operating Permits.

Boonville Daily News 412 High Street PO Box 47 Boonville, MO 65233

Attention: Legal Ads

To Whom It May Concern:

We wish to place the attached legal advertisement in your newspaper to be run ONCE. It must run on Friday, July 21, 2006.

We require a certified affidavit of publication. This must be received in our office by August 4, 2006. Please submit the affidavit and invoice for payment to:

Attention: Cheri Bechtel
Department of Natural Resources
Air Pollution Control Program
P. O. Box 176
Jefferson City, MO 65102

If you have any questions, please contact me at (573) 751-4817. Thank you for your assistance.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E. Operating Permits Unit Chief

MJS/rck

c: Cheri Bechtel, Procurement Clerk PAMS File: 2005-03-057

MISSOURI DEPARTMENT OF NATURAL RESOURCES FOLDER TRANSMITTAL ROUTING SHEET

Document #:
Division Log #:
Program Log #:

| DEADLINE: Date | Penalty for Missing Deadline: None |
|---|---|
| Boonville Correctional Center | 2005-03-057 |
| | |
| Originator: Richard J. Campbell, P.E. | Telephone: (573) 522-3781 Date: |
| Typist:: Karla Marshall. | File Name: P:\APCP\\Permits\Users\Rick Campbell\Boonville Correc Center—INTERMEDIATE_rc.doc |
| FOR SIGNATURE APPROVAL OF: | |
| □ DNR Director □ DNR Deputy Director □ | Division Director Division Deputy Director X Other: James L. Kavanaugh |
| PROGRAM APPROVAL: Approved by: | Program: APCP Date: |
| Other Program Approval (Section/Unit): Comments: | Date: |
| ROUTE TO: | |
| ☐ DIVISION DIRECTOR APPROVAL: | Date: |
| Comments: | |
| FINANCIAL REVIEW – DIVISION OF ADMIDAS Director: Fee Worksheet Received By: Accounting: Budget: General Services: Internal Audit: Purchasing: Comments: | Date: |
| ☐ LEGAL REVIEW: ☐ General Counsel: ☐ AGO: Comments: | Date: Date: |
| DEPARTMENT DIRECTOR APPROVAL: Comments: | Date: |
| ■ NOTARIZATION NEEDED | |
| | INITIALS/DATE |